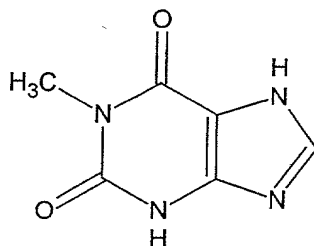


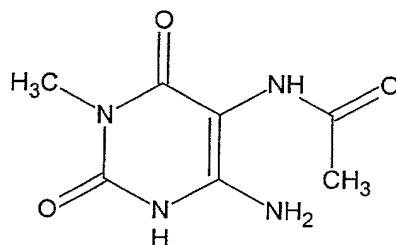
Basic Structure of N-(Aryl Substituted) -  
naphthalidimides

Fig. 1

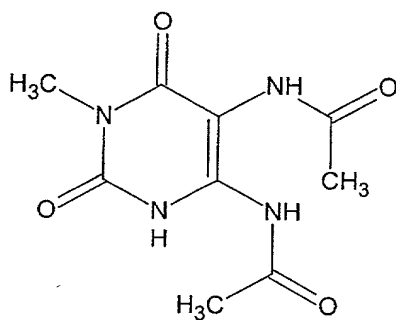
**NAT2**



1X (1-methylxanthine)



AAMU (5-acetamino-6-amino-methyluracil)

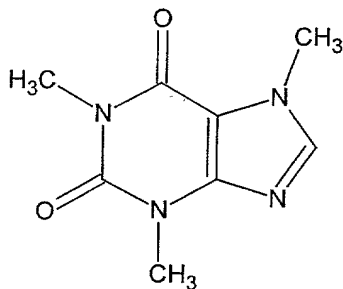


AFMU (5-acetamino-6-formylamino-methyluracil)

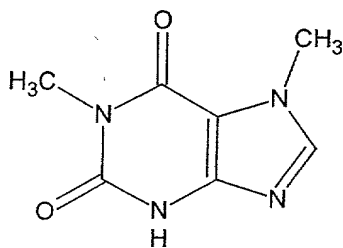
**Fig. 2**

2020-06-01

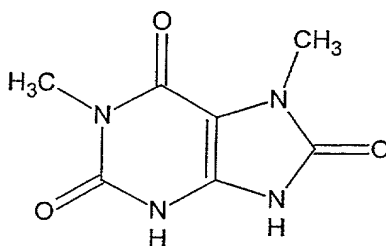
**CYP1A2**



Caffeine (1,3,7-trimethylxanthine)



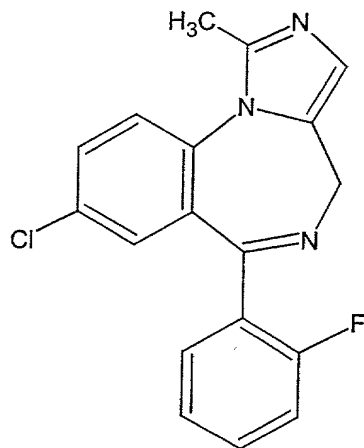
1,7-DMX (1,7-dimethylxanthine)



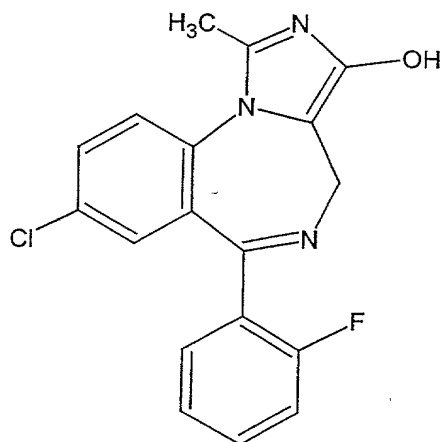
1,7-DMU (1,7-dimethyluracil)

**Fig. 3**

**CYP3A4**



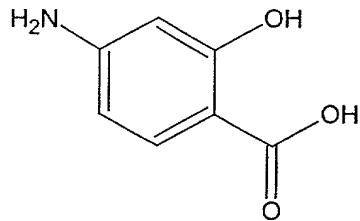
MDZ (Midazolam)



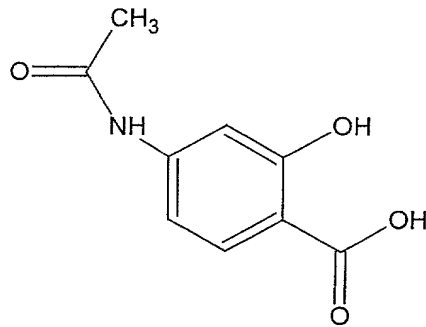
1-OH-MDZ (1-Hydroxymidazolam)

**Fig. 4**

**NAT1**



p-ASA (p-aminosalicylic acid)

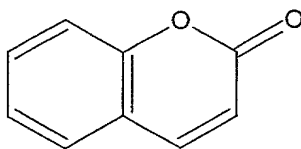


Acetyl-pASA (acetyl-p-aminosalicylic acid)

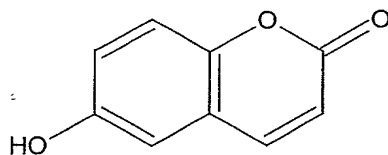
**Fig. 5**

20250909 095628001

**CYP2A6**



Coumarin

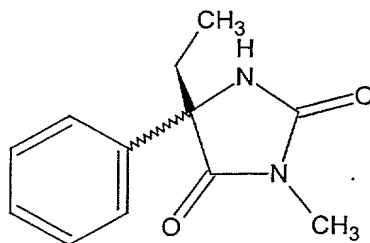


7-Hydroxycoumarin

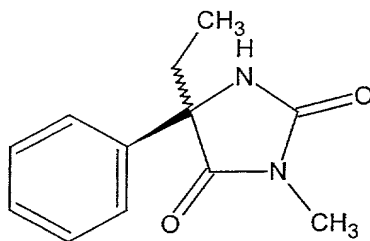
**Fig. 6**

20320 966001

**CYP2C19**



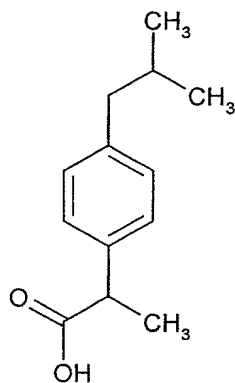
R-(-)-Mephénytoin



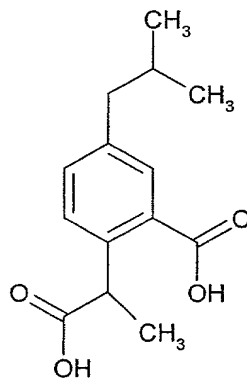
S-(+)-Mephénytoin

**Fig. 7**

**CYP2C9**



(s) -Ibuprofen

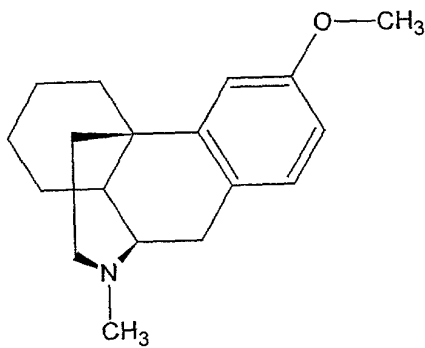


2-carboxvibuprofen

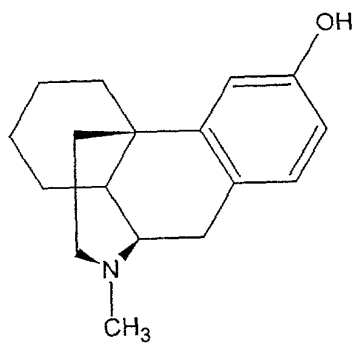
**Fig. 8**



CYP2D6



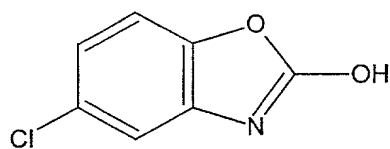
Dextromethorphan



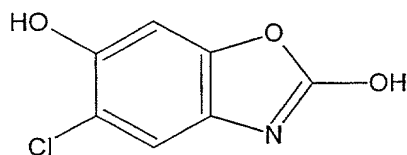
Dextrorphan

Fig. 9

**CYP2E1**



Clorzoxazone



6-Hydroxychlorzoxazone

**Fig. 10**

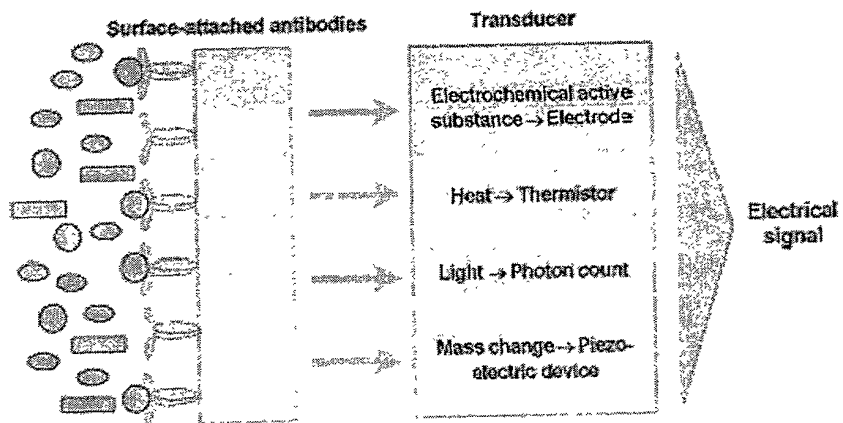


Fig. 11

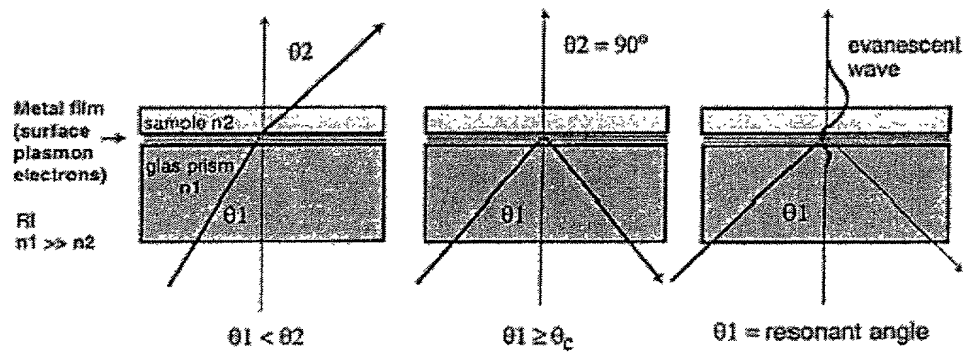


Fig. 12

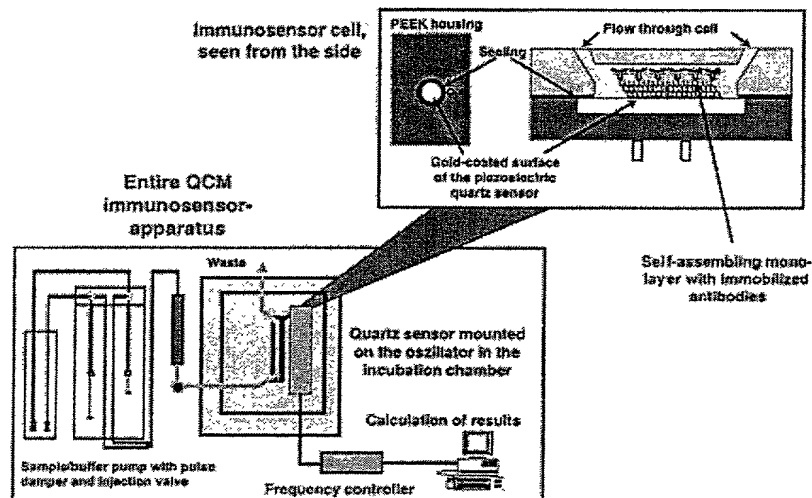
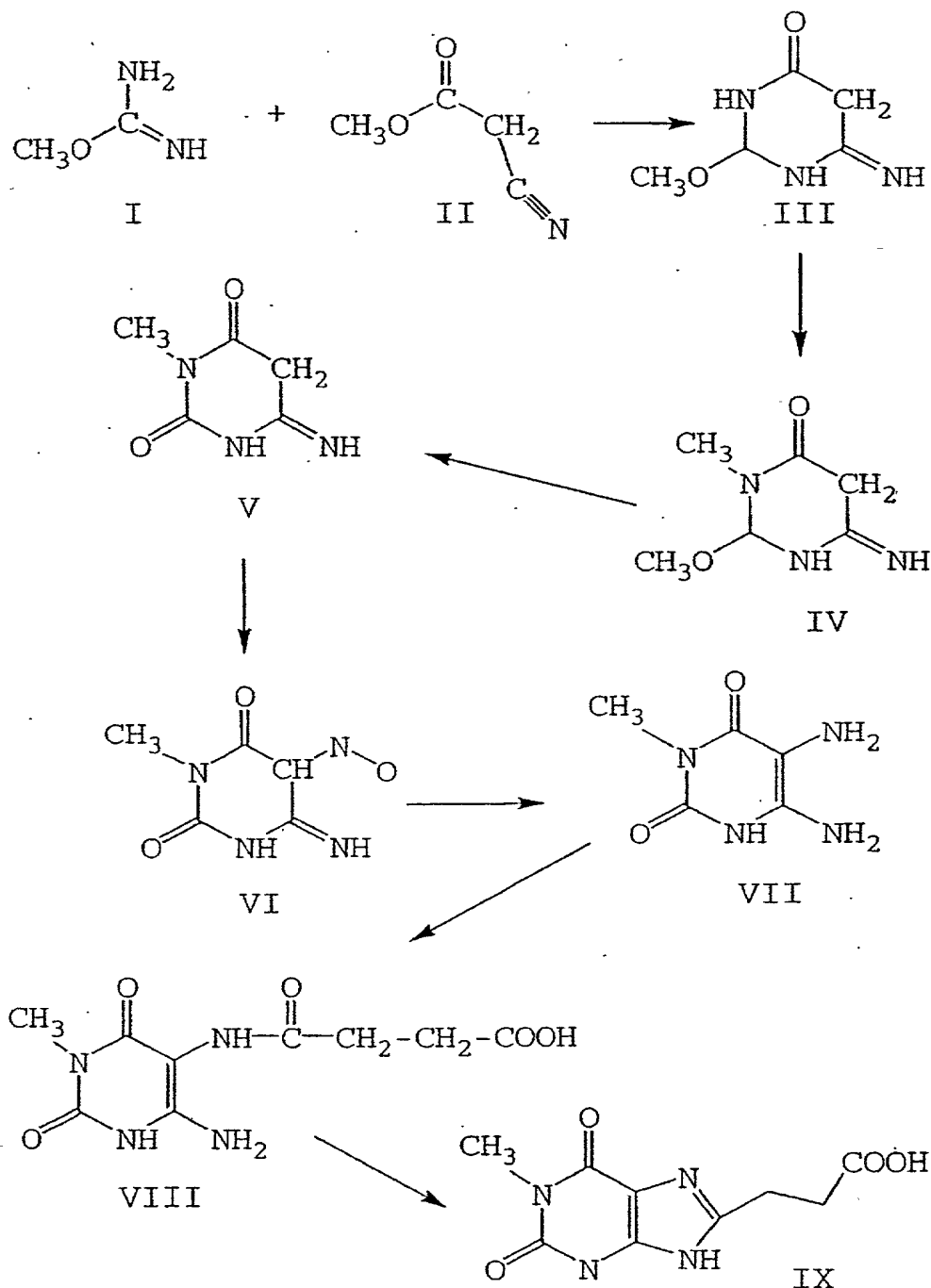


Fig. 13

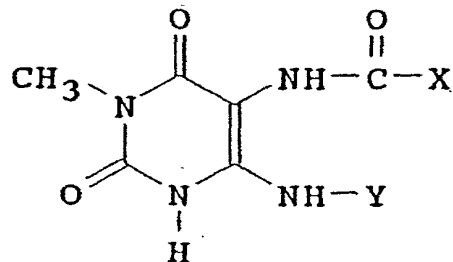


AAMU-hemisuccinic acid

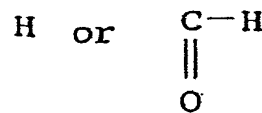
1 methyl xanthine-8-propionic acid

Fig. 14

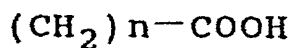
Derivatives of AAMU (5-acetamino-6-amino-3-methyluracil) or  
 AFMU (5-acetamino-6-formylamino-3-methyluracil)



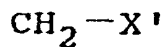
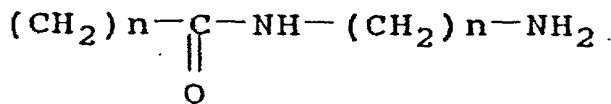
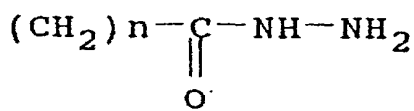
Where Y is



X



where n = 2, 3 or 4



where X' is I, Br, or Cl

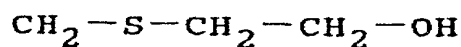
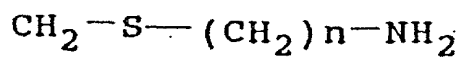
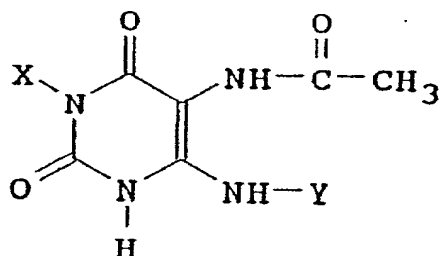


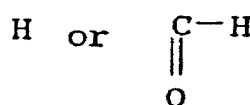
Fig. 15

208220-964801

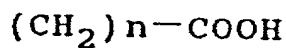
Derivatives of AAMU (5-acetamino-6-amino-3-methyluracil) or  
 AFMU (5-acetamino-6-formylamino-3-methyluracil)



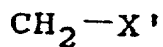
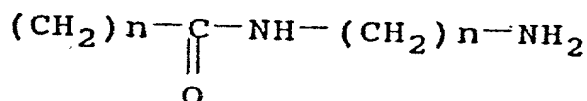
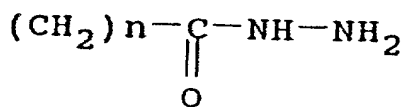
Where Y is



X



where n = 2, 3 or 4



where X' is I, Br, or Cl

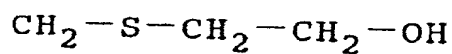
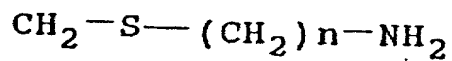
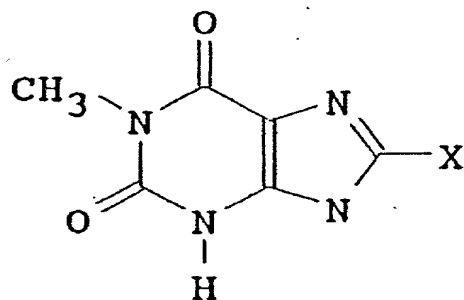


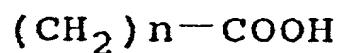
Fig. 16



Derivatives of 1X (methylxanthine)



X



where n = 2, 3 or 4

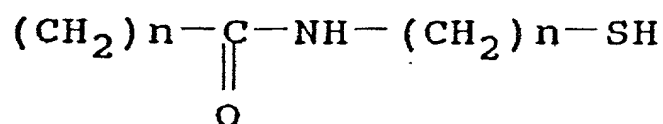
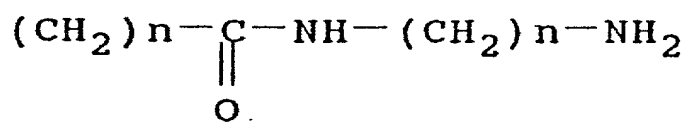
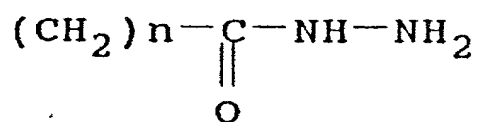
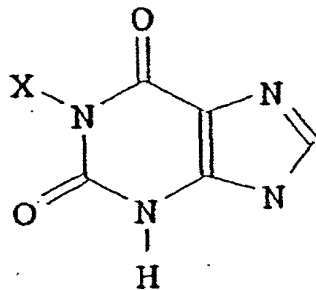
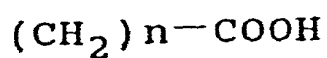


Fig. 17

Derivatives of 1X (methylxanthine)



X



where n = 2, 3 or 4

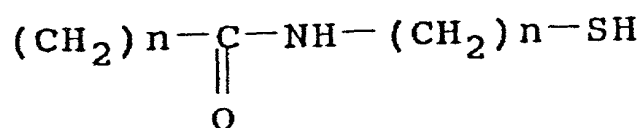
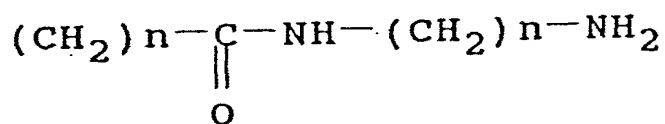
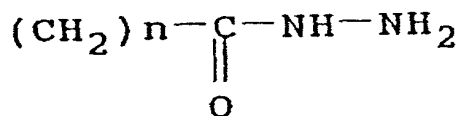


Fig. 18

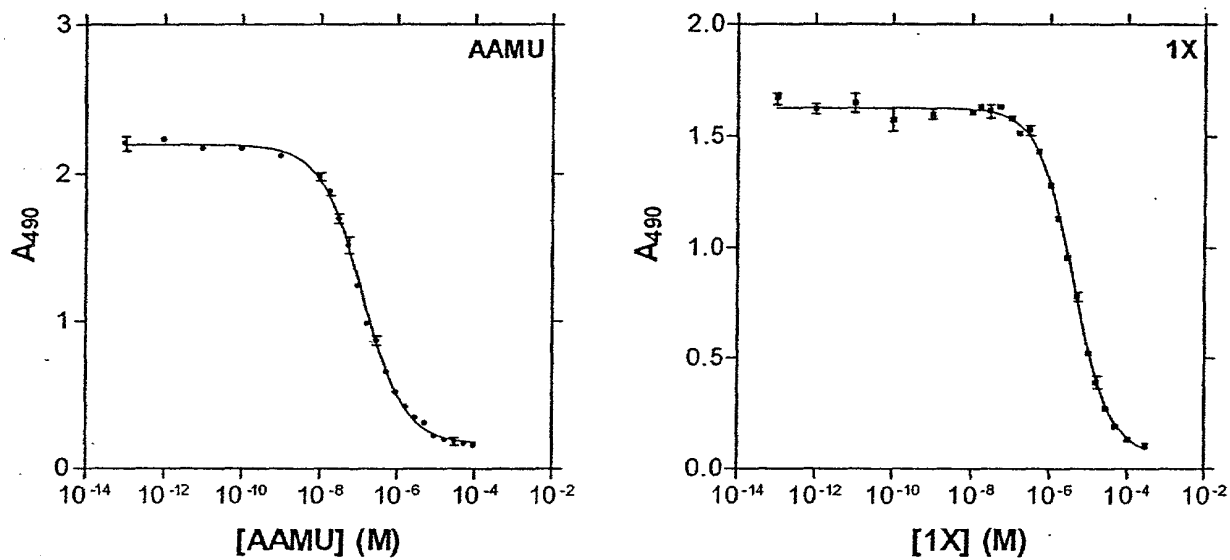


Fig. 19

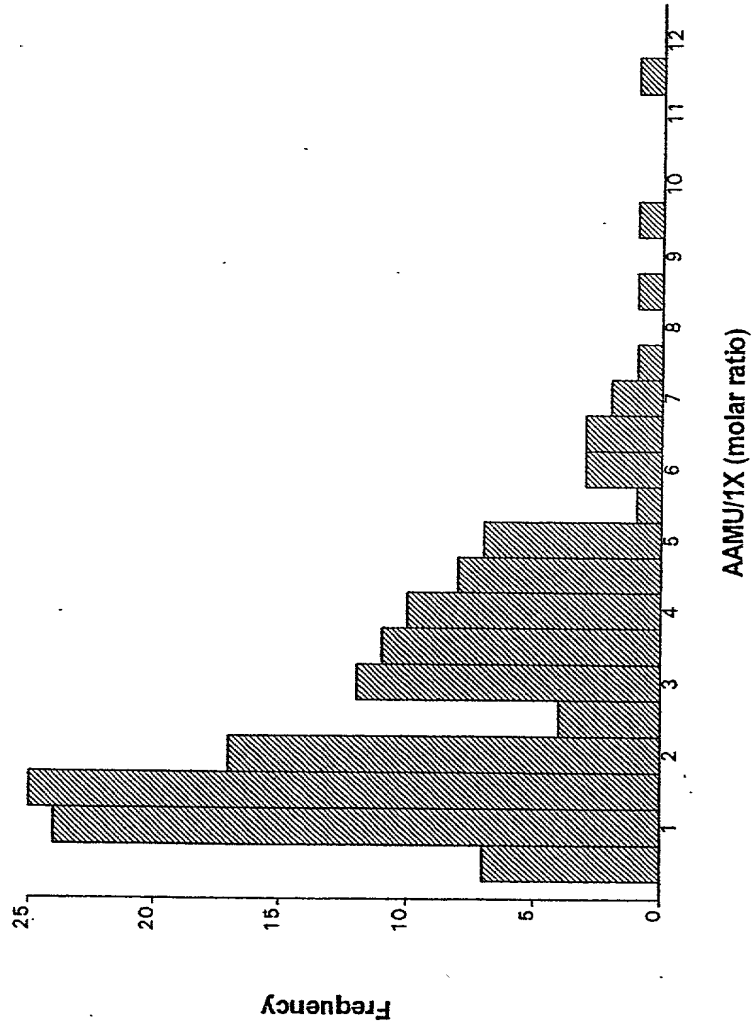


Fig. 20

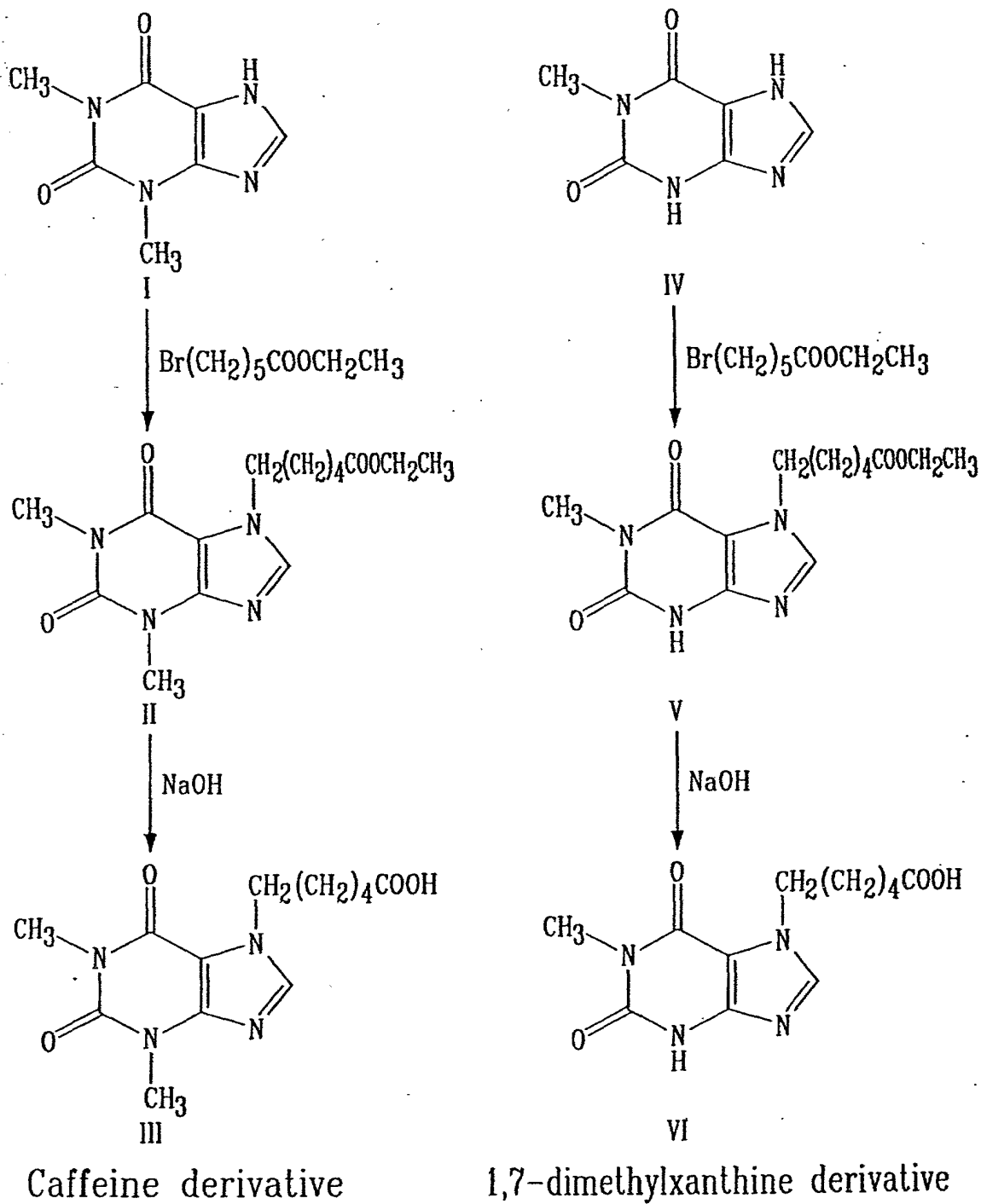
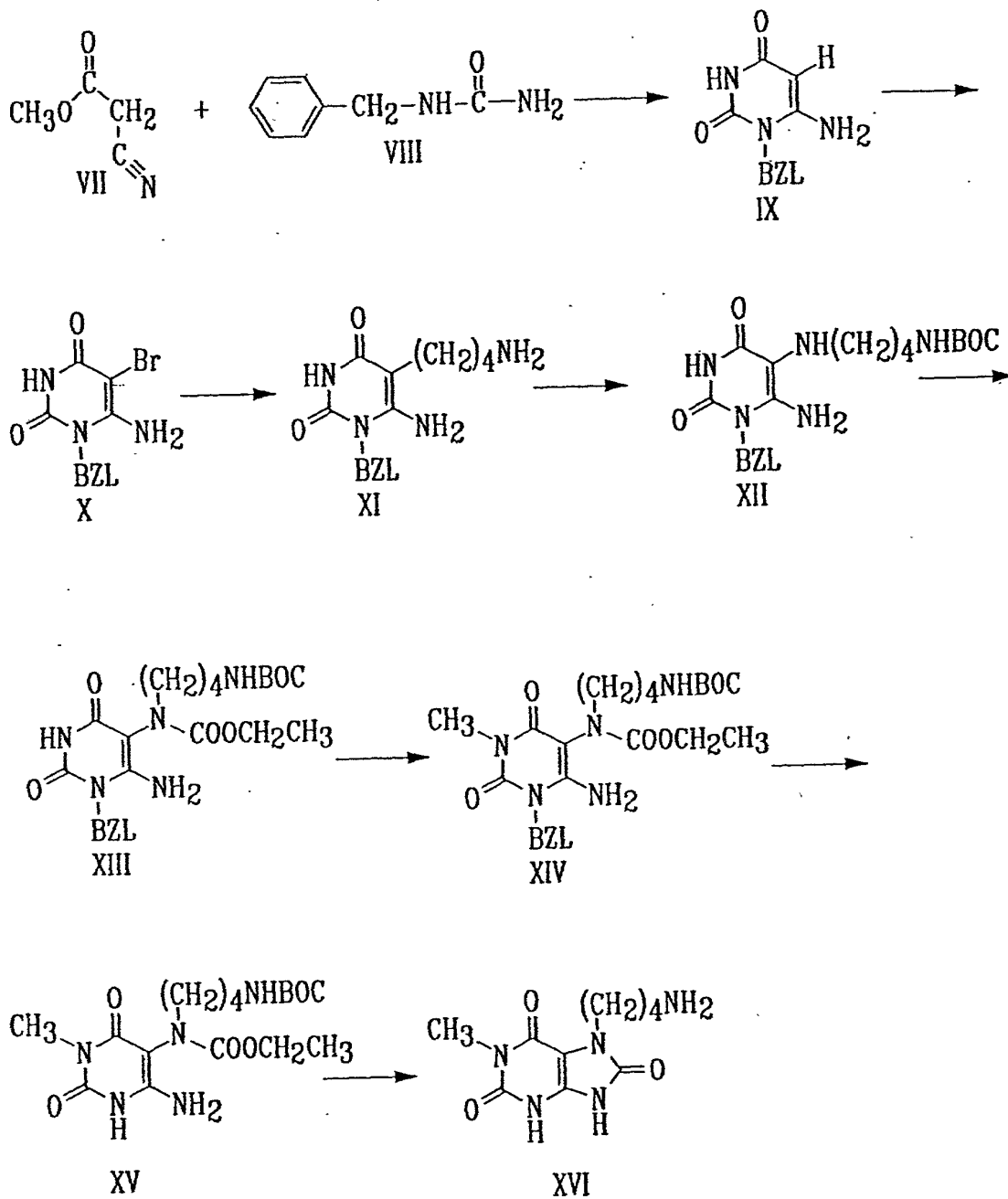


Fig. 21



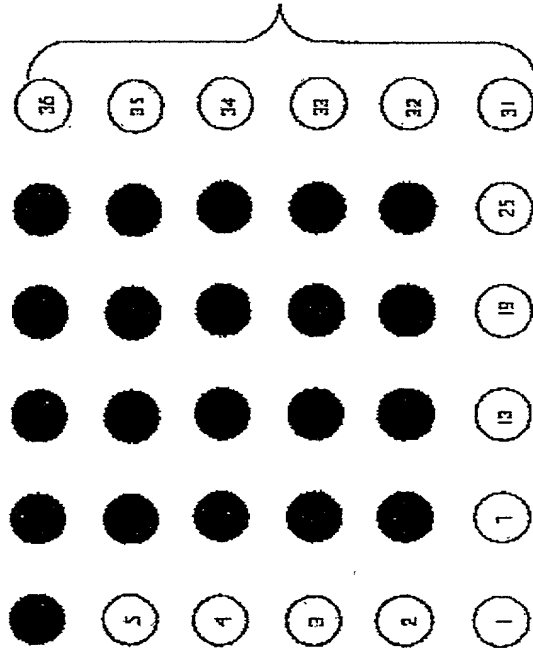
1,7-dimethyluric acid derivative

Fig. 22

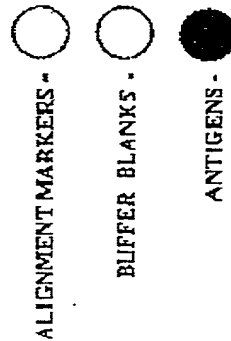
|   | 1    | 2     | 3     | 4  | 5   | 6   | 7  | 8   | 9   | 10   | 11    | 12    |
|---|------|-------|-------|----|-----|-----|----|-----|-----|------|-------|-------|
| A | Blk  | STD8  | STD16 | S1 | S9  | S5  | S1 | S9  | S5  | Blk  | STD8  | STD16 |
| B | STD1 | STD9  | STD17 | S2 | S10 | S6  | S2 | S10 | S6  | STD1 | STD9  | STD17 |
| C | STD2 | STD10 | STD18 | S3 | S11 | S7  | S3 | S11 | S7  | STD2 | STD10 | STD18 |
| D | STD3 | STD11 | STD19 | S4 | S12 | S8  | S4 | S12 | S8  | STD3 | STD11 | STD19 |
| E | STD4 | STD12 | STD20 | S5 | S1  | S9  | S5 | S1  | S9  | STD4 | STD12 | STD20 |
| F | STD5 | STD13 | STD21 | S6 | S2  | S10 | S6 | S2  | S10 | STD5 | STD13 | STD21 |
| G | STD6 | STD14 | STD22 | S7 | S3  | S11 | S7 | S3  | S11 | STD6 | STD14 | STD22 |
| H | STD7 | STD15 | STD23 | S8 | S4  | S12 | S8 | S4  | S12 | STD7 | STD15 | STD23 |

Fig. 23

# 6 x 6 ARRAY



## ARRAY LAYOUT:



## ANTIGEN KEY:

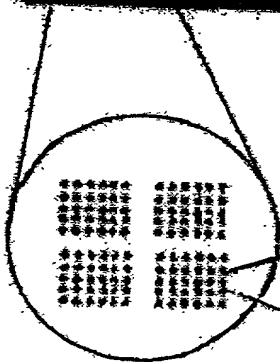
- 1. BIOTINYLATED BSA MARKER
- 2-6. BUFFER BLANKS
- 7. NAT2: AAMU
- 8. BIOTINYLATED BSA MARKER
- 9. NAT2: 1X
- 10. NAT1: pASA
- 11. NAT1: ACETYL-pASA
- 12. CYP1A2: CAFFEINE
- 13. BIOTINYLATED BSA MARKER
- 14. CYP1A2: 1,7-DMX
- 15. CYP1A2: 1,7-DMU
- 16. CYP2A6: COMARIN
- 17. CYP2A6: 7-HYDROXYCOUMARIN
- 18. CYP2C19: R-(-)-MEPHENYTOIN
- 19. BIOTINYLATED BSA MARKER
- 20. CYP2C19: S-(+)-MEPHENYTOIN
- 21. CYP2C9: DICLOFENAC
- 22. CYP2C9: 4-HYDROXYDICLOFENAC
- 23. CYP2D6: DEXTROMETHORPHAN
- 24. CYP2D6: DEXTORPHAN
- 25. BIOTINYLATED BSA MARKER
- 26. CYP2E1: CHLORZOXAZONE
- 27. CYP2E1: 6-HYDROXYCHLORZOXAZONE
- 28. CYP3A4: MIDAZOLAM
- 29. CYP3A4: 1-HYDROXYMIDAZOLAM
- 30. BUFFER BLANK
- 31-36. BIOTINYLATED BSA MARKER

Fig. 24

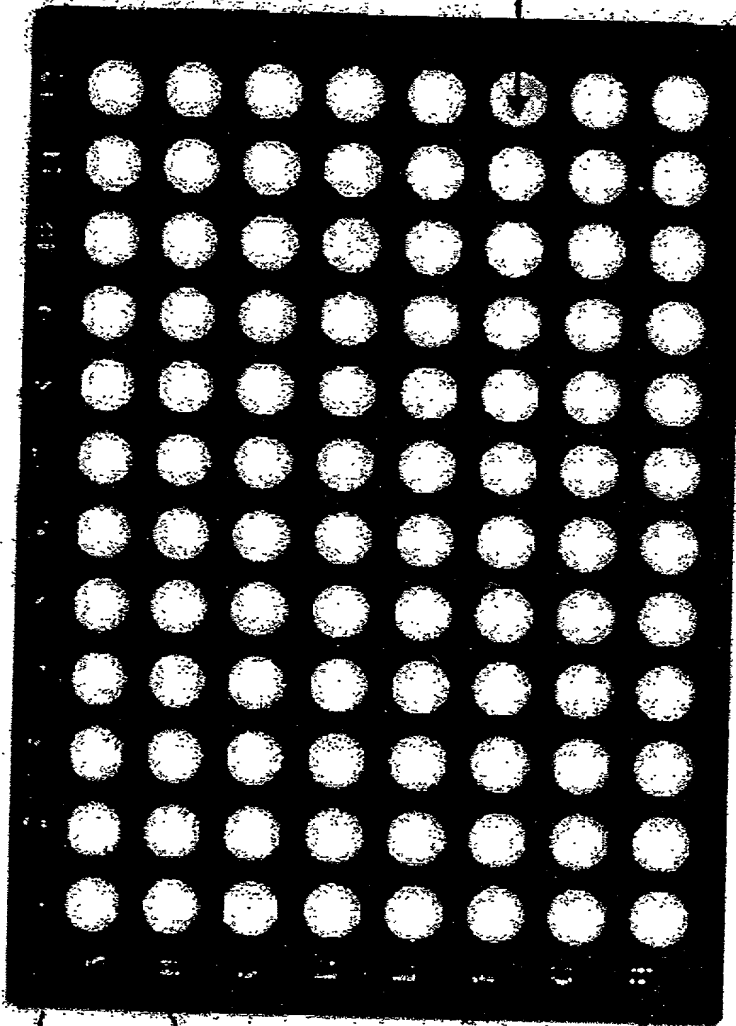
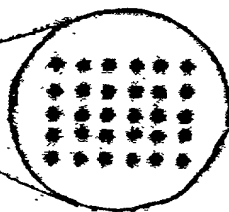


# 96-WELL MICROARRAY PLATE

4 ARRAYS/WELL



SINGLE ARRAY



WELL

Fig. 25

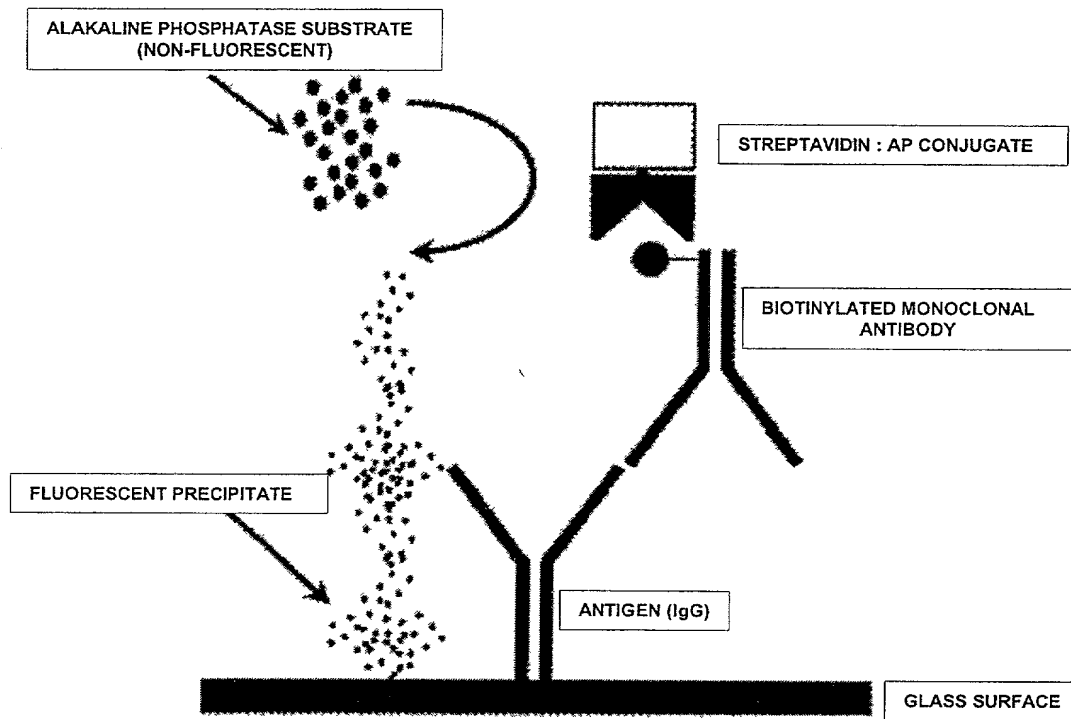


Fig. 26

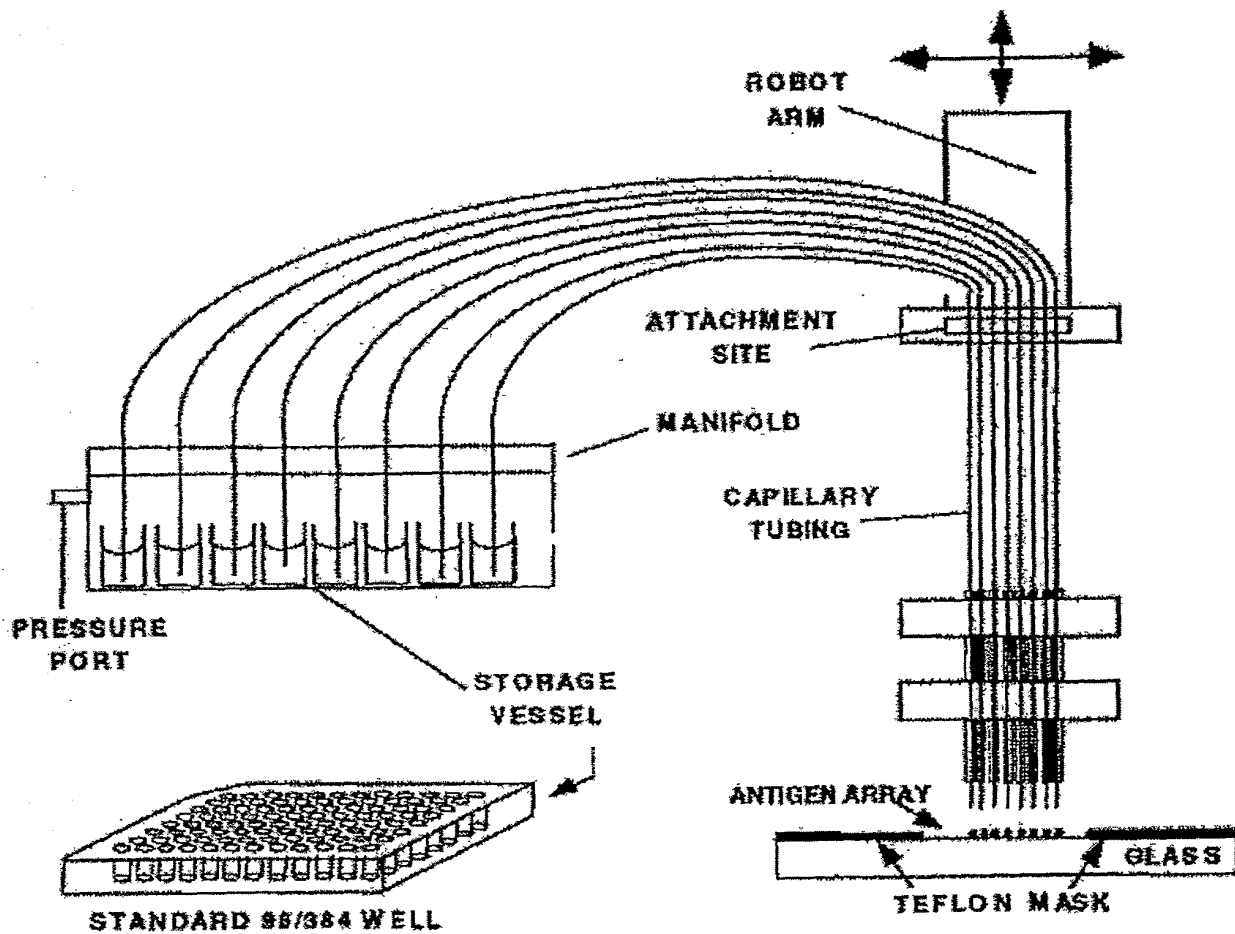


Fig. 27

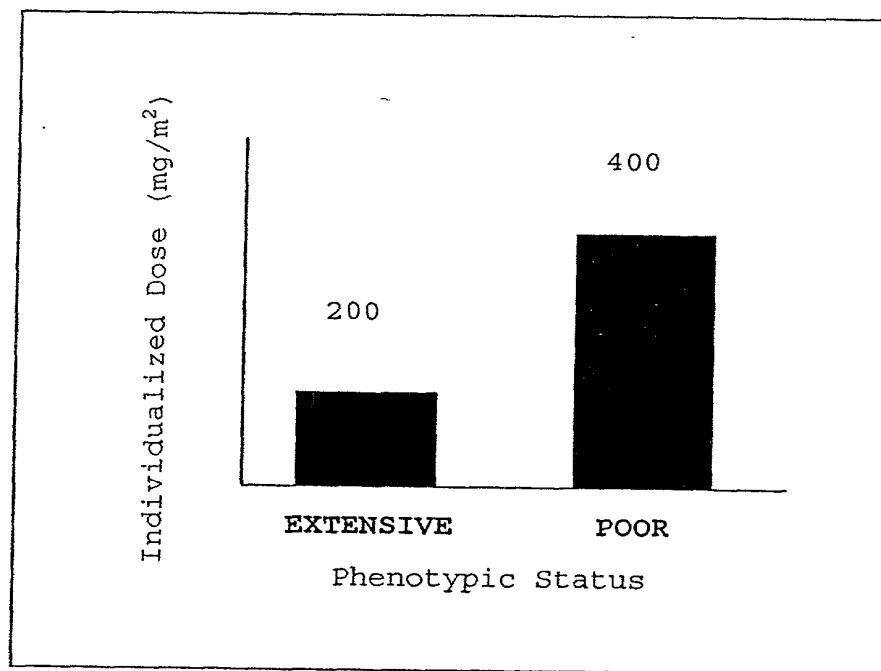
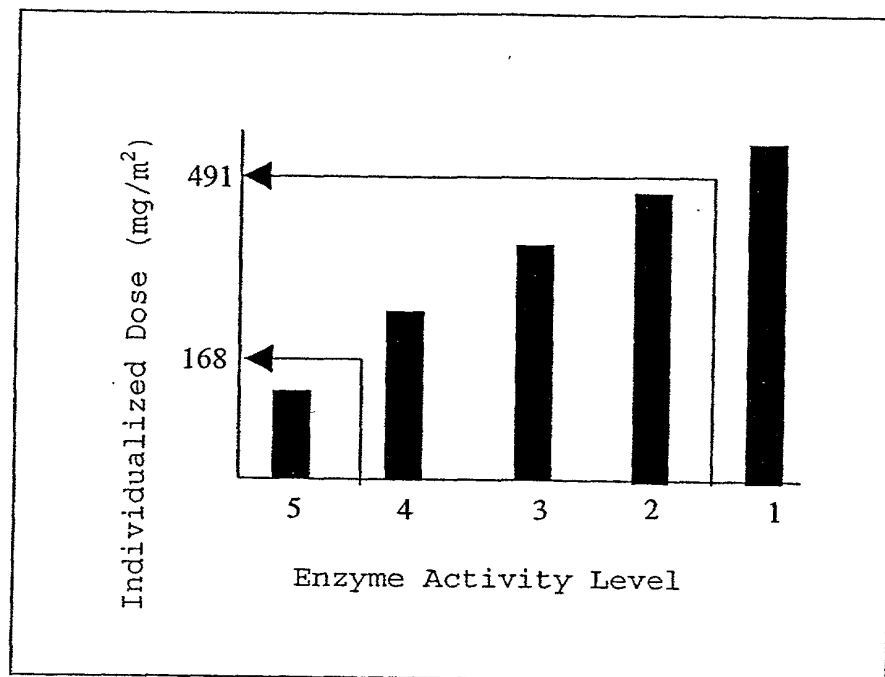


Fig. 28

Nomogram for the Determination of Body Surface Area (BSA)

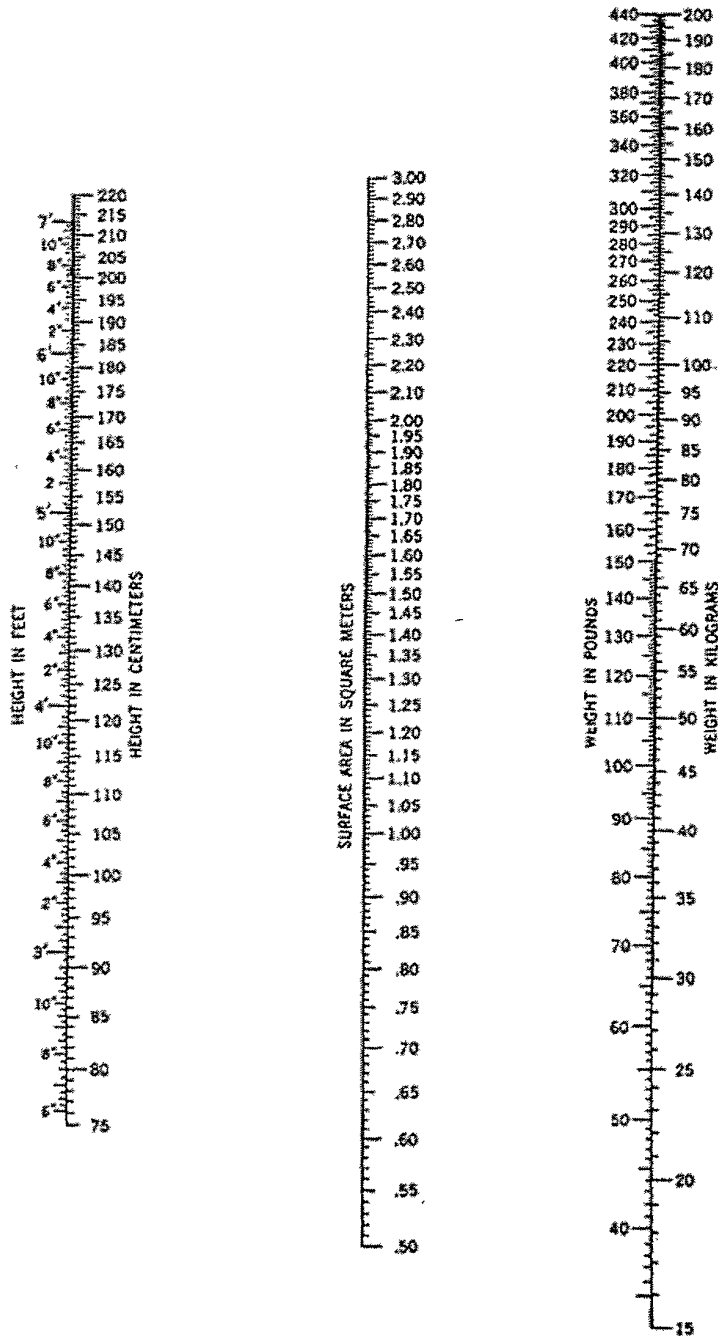


Fig. 29